

ABSTRACT OF THE DISCLOSURE

A method to compensate for stress deflection in a compound microprobe that includes a substrate, a microcantilever extending outwardly from the substrate, and a film formed on the microcantilever. The method preferably comprises the steps of

5 determining an amount of stress-induced deflection of the microcantilever, and then mounting the microprobe so as to compensate for the stress-induced deflection. The mounting step preferably includes selecting a compensation piece based upon the amount of stress-induced deflection, where the compensation piece is a wedge generally aligning the microcantilever with a deflection detection apparatus. In general, the step

10 of selecting the compensation piece includes correcting an angle between a longitudinal axis of the microcantilever and the substrate so as to insure that light reflected from the microcantilever during operation contacts a detector of a deflection detection apparatus. The preferred embodiment is also directed to a microprobe assembly having a microcantilever and a substrate coupled to a support that includes a compensation piece

15 disposed intermediate the support and the substrate. Again, the compensation piece is configured to compensate for an amount of static deflection of the microcantilever.